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#### **ABSTRACT**

Distance education in the California Community Colleges (CCC) has been limited to courses that are transferable to baccalaureate institutions because of restrictions in funding regulations in Title 5 of the California Education Code. The CCC currently enroll an average of 93,000 students annually in distance education courses, accounting for 7% of their total enrollment, and expanding distance education efforts would increase access and reduce strain on facilities. To give colleges the option of expanding their efforts, the Office of the Chancellor of the CCC developed revisions to the Title 5 regulations to make nontransferrable general education courses, occupational education, precollegiate basic skills, English as a Second Language, worksite instruction, and noncredit adult education eligible for apportionment. While proposed revisions to regulations will eliminate the barriers to expanding distance education, colleges will still require funding for start-up costs, including equipment purchase and maintenance, licensing fees, staff and faculty training, as well as funds to support additional student-faculty contact when required. In looking to implement these changes, however, the CCC is concerned about maintaining the integrity and transferability of the existing courses. The revisions to the regulations on distance education, findings from a 1992 survey of distance education practices nationwide, 82 references, and a glossary are appended. Contains 82 references. (MAB)



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# Board of Governors California Community Colleges March 10, 1994

# TITLE 5 REGULATIONS: DISTANCE EDUCATION

10

THIRD READING
ACTION SCHEDULED
(Public Hearing Item)

Presentation: F

Rita M. Cepeda, Vice Chancellor

Curriculum and Instructional Resources

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## **Board of Governors** California Community Colleges March 10, 1994

# TITLE 5 REGULATIONS: DISTANCE EDUCATION

10

THIRD READING ACTION SCHEDULED (Public Hearing Item)

Presentation: Rita M. Cepeda, Vice Chancellor

Curriculum and Instructional Resources

#### Issue

This item presents technical revisions to Title 5 regulations on the expansion of distance education to nontransferable courses.

# Background

For nearly fifteen years the California Community Colleges have provided distance education opportunities to their students. Those opportunities have been limited to courses transferable to baccalaureate institutions. However, in approving its policies for transferable distance education courses, in June 1981, the Board of Governors stated its intention to expand distance education to other credit modes in the future. Currently, an average of 93,000 students annually enroll in distance education courses statewide. This represents about seven percent of total enrollment. Because colleges have not been able to receive apportionment for nontransferable courses, very little development and research in rapidly developing technologies that support varied learning styles and educational backgrounds or that are interactive, computer linked, and more highly individualized than "telecourses" have been done.

Interest in expanding the use of distance education to all credit modes has increased over the past decade, with policy statements on the expanded uses of distance education emanating from such diverse bodies as the Commission for the Review of the Master Plan, the California Postsecondary Education Commission, the California Planning Commission for Educational Technology, the Assembly Committee on Higher Education, and the Commission on Innovation.



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In response to the earlier intentions of the Board of Governors and the policy statements noted above, Chancellor's Office staff has developed revisions to Title 5. It is important to note that the text of the Title 5 regulations proposed in this item is the result of ongoing consultation on this topic that began in 1992 and includes feedback received as recently as the latest round of consultations and ad hoc committee meetings occurring in February 1994.

## **Analysis**

#### **Consultation Summary**

- Chief Executive Officers Council: Continues to support the regulations. The Chief Executive Officers Council ad hoc task force on distance education met with Academic Senate representatives for resolution of previously stated concerns. A resolution of these concerns is reflected in the current proposed regulations.
- Council of Organizations: No consensus on a position.
- Academic Senate: The Academic Senate, at their November 1993 session took a "no support" position. A resolution of the concerns raised in their fall session has been addressed by the ad hoc task force on Distance Education during meetings in January and February of 1994 and is reflected in the current proposed regulations.
- Chief Instructional Officers: Reaffirmed its ongoing support for expansion of distance education without further delay.
- Chief Student Services Officers: Reaffirmed its ongoing support for expanded distance education and supported proposed changes in Section 55352 (the number of students assigned to one instructor). However, the CSSO Council expressed concerns about deletion of the word "personal" (Section 55376) and would prefer that it be restored with a clear definition.
- Chief Student Body Governments: Support the position for expanded distance education opportunities remains, however, the CSBG Council voted specifically to oppose changes in regulation that remove the 125 student limit and the word "personal," and voted to oppose any regulatory change that would allow basic skills courses to be taught through distance education.

Recommendations that follow establish the authority for colleges to offer distance education in nontransferable courses by proposing technical revisions to Title 5 Regulations that remove outdated language and permit apportionment for such courses. These revisions provide minimum statewide standards that colleges could exceed if



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they wish. To protect against the establishment of distance education for nontransferable courses without controlling for quality and student outcome concerns, new sections of the regulation become inoperative by July 1, 2000, unless the Board of Governors acts to delete that date. In addition, the topics of funding for distance education, possible incentives for faculty and colleges, and establishment of a technical advisory committee for distance education are also presented with recommended actions.

This agenda item was developed with the advice and assistance of the Chancellor's Office Basic Skills Advisory Committee, the ad hoc committee, Distance Learning Regulations of the Academic Senate for the California Community Colleges, and the Chief Executive Officers Council ad hoc task force on distance education. During the process of consultation, both formal and informal, a number of questions have been raised that are addressed in a question-and-answer format in this item.

# **Implications**

Upon the Board's authorization of proposed regulatory changes, local districts would be given the opportunity to design and implement distance education across the curriculum. Any new courses designed to use distance education technologies would be subject to the same state and local approval standards and procedures that are currently applicable to all other forms of community college curriculum design. Colleges are required to report student and course data for distance education using data elements already established under the Management Information System.

These changes in distance education regulations support the following initiatives from The Basic Agenda: Policy Directions and Priorities for the Nineties.

- Seek methods to accommodate the growing demand for student access, especially for underrepresented students.
- Promote the California Community Colleges as a system of quality higher education.
- Seek more cost-effective ways to deliver the services of community colleges.
- Seek additional funding in areas of identified need and in areas where existing resources are being utilized to the fullest extent possible.
- Offer more ESL and basic skills courses.



#### **Recommended Action**

The regulations as presented in January were noticed, because of the work of the ad hoc committee with agreement by all the parties, changes were made to Sections 55352 and 55376, which requires a new public comment period.

The text of the proposed regulations follows. Because the expiration of this new public comment period is not until April 11, 1994, the Board is being asked to initially approve the regulations and delegate authority to the Chancellor to adopt the regulations.

That the Board of Governors adopt the following resolution:

Be it resolved that the Board of Governors of the California Community Colleges, acting under the authority of Section 70901(d) of the Education Code, delegates authority to the Chancellor of the California Community Colleges to adopt, on behalf of the Board, regulations on Distance Education that have been reviewed and approved by the Board, and that are herein set forth.

The Chancellor shall have the authority to consider written comments regarding these regulations. The Chancellor shall also have the authority to make nonsubstantive technical changes. The Chancellor shall adopt the regulations as endorsed by the Board in this resolution only if, in the Chancellor's opinion, no substantive changes are necessary, he shall bring such revisions back to the Board of Governors for further consideration.

Pursuant to Section 208 of the Procedures and Standing Orders of the Board of Governors, these regulations shall become effective 30 days after adoption by the Chancellor unless, within that 30-day period, at least two-thirds of the community college district governing boards vote in open session to disapprove the regulation. Written verification of governing board disapproval action must state the basis for the disapproval and include the text of any related governing board resolution related to the disapproval. Verification of disapproval must be sent to the Board of Governors, postmarked no later than 30 days after the regulations are adopted by the Chancellor.

Staff: Kathy Warriner, Specialist
Basic Skills and Distance Education



# Distance Education in the California Community Colleges

# Background

The California Community Colleges have been involved in distance education, limited to transferable telecourses, for nearly fifteen years. Unfortunately, very little research has been conducted on the costs and benefits of that instruction, or on student outcomes. Although some reports and data are available from other states, data on courses and students using distance education technologies in California is minimal. Since authority to offer transferable telecourses was established in 1981, the community colleges and, indeed, California itself, have experienced dramatic changes. The mission of the California Community Colleges, the goals and objectives of the system, and the role of faculty—all have grown and expanded as the system responded to growth in the state and the need for access to the colleges by more students. However, growth has resulted in increasing pressure on our goals of equitable access to transfer, occupational, associate degree, and transitional instruction. Our ability to respond to that enrollment pressure has been impacted by a reduction in state resources available to support growth and has resulted in uneven availability of entry-level courses, including English as a Second Language and basic skills.

Distance education, defined as instruction and learning that occur whenever student and instructor are in separate physical locations, involves technologies undreamed of when current telecourse regulations were drafted. Costs for use of these technologies is dramatically dropping as use increases. In addition, new technologies emerge daily, as most businesses can attest.

To effectively respond to enrollment pressures, colleges need the increased flexibility that expanded distance education offers. As the numbers of underprepared students continue to increase, colleges need the ability to offer interactive distance education that take advantage of multimedia approaches that simultaneously address auditory, visual, and kinesthetic learning styles. Recent research on learning styles reveals that about 70 percent of those studied are primarily iconographic learners (i.e., they learn best those things that they experience visually), and only about ten percent are primarily audiographic learners. As resources diminish, community colleges need new ways to respond to the demand for more courses and sections.

Distance education is only one of many innovative approaches being examined to increase access and meet demand for more courses in a cost-effective manner. Emphasis on new and larger campuses must yield to improved access to instruction in public buildings, homes, and workplaces. Funding incentives for faculty willing to innovate with technology-supported instruction must be found.



#### Statement of the Problem

Under current regulation, only courses transferable to baccalaureate institutions can be offered via distance education technology. Curriculum committees lack the flexibility to suggest innovative technology-supported instructional approaches even when design of courses for distance delivery would provide vital access to the curriculum for students otherwise denied enrollment. Counselors and faculty advisors are unable to assure students that appropriate general education and precollegiate basic skills courses will be available in sufficient numbers to allow timely access to the associate degree and/or the occupational and transfer curriculum.

While expanded distance education will not solve all these problems, it is one tool that can be made available to colleges through the removal of regulatory barriers. The decision to expand use of distance education will, of course, be left to each individual college, its faculty, administration, and board of trustees. Local decisions about disciplines most appropriate for distance education and technologies most feasible at any given campus will require considerable discussion. Direct and indirect costs and benefits derived will require technical assistance from the Chancellor's Office and local research before decisions to pilot new distance education can be made. Provisions for housing technology to assure accessibility to all interested faculty and students will be required as facilities are designed or renovated. Adequate faculty and staff development funds to support innovation must be assured. Extension of student services and library and learning resources to distant students must be developed.

#### Discussion

# • How does distance education differ from other instructional methodologies?

Perhaps the characteristic noted most often in research is the "learner centered," rather than "teacher centered," nature of distance education. Distance education, and other educational applications of telecommunications technologies, is designed to engage a student to become an active partner with the teacher in a teaching/learning contract. While it is certainly the case that offering course sections at off-campus locations can alleviate time and space pressures and provide access for students otherwise denied, many other benefits can also occur.

While every student may not benefit from distance education, research from other states suggests that many students do greatly benefit. Typically, such students self-select the courses, have clear goals, and need the course to accomplish those goals. They earn grades as high as, or higher than, students in traditional classroom sections. They persist into the next semester at higher rates than other students.



Similarly, while distance education will not be the choice of every member of the faculty, those faculty involved report great satisfaction with their distance education experiences. They also report that initially, distance education takes more of their time than traditional classroom presentations. In particular, adequate preparation time is needed and review of student work and response to student contact are more frequent for distance education sections. This appears to be so, even in states that do not require "face-to-face" contact. Faculty response in interactive technology situations is immediate; for linked computer situations, daily communication between student and faculty seems typical.

It is important to note that while innovative instructional methodology characterizes distance education, such courses are held to the exact same standards as all other instruction and require departmental, curriculum committee, administrative, and local board of trustees' approval. Colleges also provide student support that include access to library collections, financial aid, and matriculation services for students enrolled in distance education, although typically, that support is located on campus.

#### What additional courses might be targeted for distance delivery?

The answer to this question will vary according to the availability of technical support, regional needs, and demand. The rationale that drives current discussion revolves around the knowledge that we do not have sufficient sections of many courses available. Just as important, however, is the notion that distance delivery of instruction can serve as an important alternative that students can choose when they select courses. In addition, technology supports certain learning styles in ways that more traditional lecture/lab delivery does not.

- Nontransferable general education courses. Many colleges are currently unable to offer enough sections of these courses in a timely manner. This situation results in a delay ir granting of the associate degree.
- Occupational education. The high cost of up-to-date equipment for occupational education endangers the continued offering of courses in a timely manner by many colleges. Distance education offers the flexibility to use equipment located at one college to serve students at many locations. In addition, many theoretical occupational applications can be demonstrated through computer simulations.
- ransitional instruction (precollegiate basic skills). For the many students who come academically underprepared to the community colleges, the unavailability of sufficient sections of precollegiate basic skills courses acts as a barrier to completion of their goals in a timely manner.



- English as a Second Language (ESL). Demand for ESL instruction continues to grow and the ability of colleges to meet this demand remains problematic. Without basic English-language competency, nearly all other college curriculum is out of reach of a student needing, but unable to get, beginning ESL. Although concerns have been expressed about the appropriateness of distance education for ESL, several colleges would like to pilot ESL using cable or other in-the-home technology rather than deny access completely. It is important to note that foreign language has been taught very successfully as distance education in California and throughout the United States for many years. Although there are differences in ESL and foreign language courses, there are also many similarities.
- Worksite instruction. There is particular interest in providing workplace ESL and basic skills instruction in response to industry needs. Distance education for occupational training and worker retraining is currently being utilized but not by the California Community Colleges.
- Noncredit adult education. Although it is unlikely that all nine categories of instruction will adapt to distance education, there is increasing interest in ESL, elementary and secondary basic skills, and General Education Development diploma examination preparation courses.

### What about funding?

Under current Title 5 regulation, only transferable distance education courses are eligible for apportionment. Proposed revisions to regulations will eliminate the barrier to expansion to nontransferable credit and noncredit adult education courses. However, apportionment addresses only part of the funding needs of distance education. Colleges also need to budget for start-up costs, including, but not limited to, equipment purchase and maintenance; licensing fees, where applicable; faculty and staff training; etc. Where additional student-faculty contact is necessary to assure student success, funds to support such contact must be included in workload formulas. Although recent discussions have focused upon possible short-term savings available with the expanded use of distance education—primarily by delaying the need for construction of new campuses—it is important to note that there are both costs and savings involved in distance education. The most compelling reasons for expansion appear to be improved access for students and innovative instructional approaches that support varied student goals and learning styles.

# What about transferability?

Whenever Title 5 regulations are revised, careful attention must be paid to adverse impact on existing regulations. The proposed revisions are a case in



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point. Currently, an average of 93,000 students per year enroll in transferable distance education courses. This represents about seven percent of total enrollment. While this is not a large number, protecting the transferability of those courses is an important concern. The transferability of distance education courses does not exist in a vacuum, however. As an item prepared for the Board of Governors' January 1994 meeting notes (Transfer and Articulation Update: Senate Bill 121, p.4):

"Since the passage of SB 121, however, local articulation efforts have eroded and it appears that articulation is no longer an operational priority for many University campuses. Citing budget and staffing constraints, resources previously allocated to articulation activities are being redirected. Community colleges are being told that articulation updates will be infrequent or discontinued. This trend is alarming and the community colleges, through the ICC Progress of Students Subcommittee, are encouraging the University systems to exert their influence to reverse this trend and renew their commitment to strengthening articulation.

"In this era of declining resources, it becomes even more critical for students that articulation is in place for as much of the college and University curricula as possible. Students on tight budgets facing increasing fees need assurances that courses will not have to be repeated ..."

Chancellor's Office staff have been in close contact with both University of California Board of Admissions and Relations with Schools and the Intersegmental Council of Academic Senates and will continue to press for satisfactory outcomes on transferability issues, including, but not limited to, distance education.

#### **Recommended Solutions**

Recommendation One: Remove regulatory barriers to expanded use of distance education for nontransferable credit courses and noncredit adult education instruction (regulatory changes to "sunset" July 1, 2000, unless changed by subsequent Board of Governors' action).

Recommendation Two: Seek funds from the Legislature and other sources that would support distance education. Education technology grants for elementary and secondary schools in California have been available for about twelve years, but no such funding has been provided for the postsecondary segments. Such pilot projects would include research on cost benefits, student outcomes, and faculty satisfaction; they would provide a California data base to enable improved evaluation of uses of distance education. In addition, finding a way to permit growth-over-cap for distance education would provide an incentive for colleges to undertake the local research and development necessary to implement expanded distance education.



# Revisions to Regulations on Distance Education

1. Section 55314 of Subchapter 4 of Chapter 6 of Division 6 of Title 5 of the California Code of Regulations is repealed.

#### 55314. Faculty and Student Participation.

In the development and evaluation of courses and programs subject to the requirements of this chapter, the district shall include input from, and participation by, faculty who are selected by academic senates or appropriate faculty bodies, and students.

NOTE: Authority cited: Sections 66700, 70901 and 78301, Education Code. Reference: Sections 70901, 70902 and 78310, Education Code.

2. Section 55316 of Subchapter 4 of Chapter 6 of Division 6 of Title 5 of the California Code of Regulations is amended to read:

#### 55316. Criteria.

Courses offered pursuant to this cChapter shall:

(a) Be accepted by the college toward completion of an appropriate educational sequence leading to an associate degree, and

(b) Shall bBe recognized by an institution of the University of California

or the California State University upon transfer to that institution.

Evidence of transferability to California State University or to the University of California shall be deemed to exist when the community college certifies that the course is recognized upon transfer.

NOTE: Authority cited: Sections 66700, and 70901, and 78310; Education Code. Reference: Sections 70901, 70902, and 78310, Education Code.

3. Section 55316.5 of Subchapter 4 of Chapter 6 of Division 6 of Title 5 of the California Cocia of Regulations is added to read:

#### 55316.5. Additional Courses.

Notwithstanding any other provision of law, after June 1, 1994, the following additional types of courses may be offered pursuant to this Chapter, consistent with guidelines developed by the Chancellor:

(a) Nontransferable courses designed to meet the requirements of Sections

55805.5, 55806, and 55002(a) or (b);

(b) Noncredit courses conducted as distance education independent study.



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This Section shall become inoperative on July 1, 2000, unless a lateradopted regulation deletes or extends this date.

NOTE: Authority cited: Sections 66700, and 70901, Education Code. Reference: Sections 70901, 70902, and 78310, Education Code.

4. Section 55317 of Subchapter 5 of Chapter 6 of Division 6 of Title 5 of the California Code of Regulations is added to read:

55317. Ongoing Responsibilities of Districts.

Any district conducting courses under Section 55316 or 55316.5 shall:

(a) Maintain records and report data through the Chancellor's Office Management Information System on the number of students and faculty participating in new courses or sections of established courses;

(b) Provide to the local governing board no later than July 1, 1995, and

annually thereafter, a report on all distance education activity.

(c) Provide other information consistent with reporting guidelines which may be developed by the Chancellor pursuant to Section 409 of the Procedures and Standing Orders of the Board of Governors.

This Section shall become inoperative on July 1, 2000, unless a later-

adopted regulation deletes or extends this date.

NOTE: Authority cited: Sections 66700, and 70901, Education Code. Reference: Sections 70901, 70902, and 78310, Education Code.

5. Section 55318 of Subchapter 4 of Chapter 6 of Division 6 of Title 5 of the California Code of Regulations is repealed.

#### 55318. Written Record.

In submitting a report offered pursuant to this chapter, a college shall certify the components of each course are set out in a written record for each student enrolled, and have been developed and evaluated with the participation of faculty and students as noted in this chapter.

NOTE: Authority cited: Sections 66700, 70901, and 78310 Education Code. Reference: Sections 70901, 70902, and 78310, Education Code.



5. Section 55340 of Subchapter 4 of Chapter 6 of Division 6 of Title 5 of the California Code of Regulations is amended to read:

55340. Eligibility for State Funds.

- (a) In order for attendance in a course of independent study to be eligible for state apportionment pursuant to the provisions of this chapter, the course must be reported as required by this chapter, and meet all other requirements of statute and regulation relative to eligibility for state apportionment.
- (b) For purposes of computing attendance, one weekly student contact hour shall be counted for each unit of independent study credit for which a student is enrolled.

NOTE: Authority cited: Sections 66700, and 70901, and 78310, Education Code. Reference: Sections 70901, 70902, and 78310, Education Code.

7. Section 55352 of Subchapter 4 of Chapter 6 of Division 6 of Title 5 of the California Code of Regulations is repealed.

#### 55352. Number of Students.

The number of students assigned to any one instructor of courses offered pursuant to this section shall not exceed 125 students per instructor unless exempted by the Chancellor.

NOTE: Authority cited: Sections 66700, and 70901, Education Code. Reference: Sections 70901, 70902, and 78310, Education Code.

8. Section 55352 of Subchapter 4 of Chapter 6 of Division 6 of Title 5 of the California Code of Regulations is added to read:

55352. Number of Students.

The number of students assigned to any one course section offered by distance education shall be determined by and be consistent with other district procedures related to faculty assignment. Procedures for determining the number of students assigned to a course section offered by distance education may include a review by the curriculum committee established pursuant to Section 55002(a)(1).

NOTE: Authority cited: Sections 66700, and 70901, Education Code. Reference: Sections 70901, 70902, and 78310, Education Code.



9. Section 55370 of Subchapter 4 of Chapter 6 of Division 6 of Title 5 of the California Code of Regulations is amended to read:

#### Article 2. Telecourses. Distance Education.

Section 55370. Definition and Application.

Telecourses are courses or sections in which instruction is delivered over distance, and in which a significant portion of instruction is delivered through electronic technology, such as one of the following:

- (a) open broadcast, cable, or low power television;
- (b) instructional television fixed service;
- (c) radio:
- (d) computers, when linked over distance;
- (e) integrated broad-band communications; and
- (f) video and/or audio cassettes.

<u>Distance education means instruction in which the instructor and student are separated by distance and interact through the assistance of communication technology.</u>

All telecourses are All distance education is independent study courses, and are subject to the general requirements of Article 1 as well as the specific requirements of this Article. Provided however, that fully interactive distance education courses, as defined in guidelines adopted by the Chancellor, shall not be considered independent study for purposes of calculating state apportionment pursuant to Section 58003.1. In addition, instruction provided as distance education is subject to the requirements that may be imposed by the Americans with Disabilities Act (42 U.S.C. Sec. 12100 et seq).

NOTE: Authority cited: Section 70901, Education Code. Reference: Sections 70901-70902, Education Code.

10. Section 55372 of Subchapter 4 of Chapter 6 of Division 6 of Title 5 of the California Code of Regulations is amended to read:

# 55372. Course Quality Standards.

The same standards of course quality shall be applied to telecourses distance education as are applied to traditional classroom courses, in regard to the course quality judgments made pursuant to the requirements of Section 55002 of this Part, and in regard to any local course quality determination or review process.

NOTE: Authority cited: Section 70901, Education Code. Reference: Sections 70901-70902, Education Code.



11. Section 55374 of Subsection 4 of Chapter 6 of Division 6 of Title 5 of the California Code of Regulations is amended to read:

55374. Course Quality Determinations.

Determinations and judgments about the quality of telecourses distance education, under the course quality standards referred to in Section 55372, shall be made with the full involvement of faculty in accordance with the provisions of Subchapter 2 (commencing with Section 53200) of Chapter 2 of Division 4 of this Part.

NOTE: Authority cited: Section 70901, Education Code. Reference: Sections 70901-70902, Education Code.

12. Section 55376 of Subchapter 4 of Chapter 6 of Division 6 of Title 5 of the California Code of Regulations is amended to read:

55376. Readings and Instructor Contact.

In addition to the requirements of Section 55002 and any locallyestablished requirements applicable to all courses, district governing boards shall ensure that:

(a) Each telecourse shall include the use of appropriate texts, supplemental assigned readings, and/or enrichment materials and activities:

- (b)(a) Each telecourse section of a credit transferable course which is delivered as distance education shall include regular personal contact between instructor and students; through group or individual meetings, orientation and review sessions, supplemental seminar or study sessions, field trips, library workshops, or other in-person activities. Personal contact may be supplemented by telephone contact and correspondence.
- (b) All other approved courses offered by distance education shall include regular contact between instructors and students consistent with guidelines issued by the Chancellor pursuant to Section 409 of the Procedures and Standing Orders of the Board of Governors.

NOTE: Authority cited: Section 70901, Education Code. Reference: Sections 70901-70902, Education Cc.le.

13. Section 55378 of Subchapter 4 of Chapter 6 of Division 6 of Title 5 of the California Code of Regulations is amended to read:

55378. Separate Course Approval.

Each proposed or existing course telecourse, including a section of an existing course if delivered by distance education, when offered via telecommunications, shall be separately reviewed and approved, according to



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the district's certified course approval procedures, whether or not the course is already approved to be offered in a traditional classroom setting.

Separate approval of telecourses by the Chancellor's Office is not required, except when such approval would otherwise be required under Section 55100.

NOTE: Authority cited: Section 70901, Education Code. Reference: Sections 70901-70902, Education Code.

14. Section 55380 of Subchapter 4 of Chapter 6 of Division 6 of Title 5 of the California Code of Regulations is amended to read:

#### 55380. Faculty Selection.

Instructors of telecourses sections delivered via distance education technology shall be selected by the same procedures used to determine all instructional assignments. Instructors shall possess the minimum qualifications for the discipline into which the telecourse's course's subject matter most appropriately falls, in accordance with Article 2 of Chapter 4 of Division 4 of this Part (commencing with Section 53410), and with the list of disciplinary definitions and requirements adopted by the Board of Governors to implement that aArticle, as such list may be amended from time to time.

NOTE: Authority cited: Section 70901, Education Code. Reference: Sections 70901-70902, Education Code.

15. Section 58003.1 of Subchapter 1 of Chapter 9 of Division 6 of Title 5 of the California Code of Regulations is amended to read:

#### 58003.1. Average Daily Attendance; Computation.

(a) Pursuant to the provisions of <u>sSection</u> 58051, the units of average daily attendance for apportionment purposes shall be computed for courses based on the type of course, the way the course is scheduled, and the length of the course.

(b) The governing board of each community college district shall, for each of its colleges or its district, select and establish a single primary term length for credit courses that are scheduled regularly with respect to the number of days of the week and the number of hours the course meets each week, inclusive of holidays. The units of average daily attendance of credit courses scheduled conterminously with the term, exclusive of independent study or work experience education courses, shall be computed by multiplying the average student contact hours of active enrollment as of Monday of the weeks nearest to one-fifth of the length of the term, unless other weeks are specified by the Chancellor to incorporate past practice, by the term length multiplier, multiplied by the statewide factor as established by the Board of Governors subject to the approval of the Department of Finance, and divided by 525. The term length multiplier for attendance accounting purposes shall be determined

in accordance with regulations of the Board of Governors, provided that the maximum multiplier for semester length terms shall be 17.5 and the maximum multiplier for quarter length terms shall be 11.67.

- (c) For credit courses scheduled to meet for five or more days and scheduled regularly with respect to the number of hours during each scheduled day, but not scheduled co-terminously with the college's primary term established pursuant to subdivision (b), or scheduled during the summer or other intersession, the units of average daily attendance, exclusive of independent study or work experience education courses, shall be computed by multiplying the average daily student contact hours of active enrollment as of the census day nearest to one-fifth of the length of the course by the number of days the course is scheduled to meet, multiplied by the statewide factor as established by the Board of Governors subject to the approval of the Department of Finance, and divided by 525.
- (d) For credit courses scheduled to meet for fewer than five days, and all credit courses scheduled irregularly with respect to the number of days of the week and the number of hours the course meets on the scheduled days, the units of average daily attendance, exclusive of independent study or work experience education courses, shall be computed by dividing actual student contact hours of attendance by 525.
- (e) For all open entry-open exit credit courses and for all noncredit courses otherwise eligible for state aid, the units of average daily attendance shall be computed by dividing actual student contact hours of attendance by 525.
- or noncredit courses. For purposes of computing average daily attendance only, one weekly student contact hour shall be counted for each unit of credit for which a student is enrolled in one of those courses. The average daily attendance of those courses shall be computed by multiplying the average of the units of credit for which students are enrolled as of the census dates prescribed in solubdivisions (b) or (c), as appropriate for the primary term or intersession and duration for which the course is scheduled, by the term length multiplier as provided for in subdivision (b), and dividing by 525.
- (1) For credit courses, for purposes of computing average daily attendance only, one weekly student contact hour shall be counted for each unit of credit for which a student is enrolled in one of those courses. The average daily attendance of those courses shall be computed by multiplying the average of the units of credit for which students are enrolled as of the census dates prescribed in Subdivisions (b) or (c), as appropriate for the primary term or intersession and duration for which the course is scheduled, by the term length multiplier as provided for in Subdivision (b), and dividing by 525.
- (2) For noncredit course sections conducted as distance education independent study, for purposes of computing average daily attendance only, weekly student contact hours shall be derived by counting the hours of instructional programming received by the students, plus instructor contact as defined in Section 55376(b), plus outside-of-class work expected as noted in the course out-line of record and approved by the curriculum committee, and dividing the total



(g) Notwithstanding subdivisions (b) and (c) of this section, the units of average daily attendance for any credit course other than independent study or work experience education courses may, at the option of the district, be computed by dividing the actual student contact hours of attendance by 525. When a district chooses to exercise the option of computing attendance for any course section by the actual student contact hours method, such method must be used consistently for all attendance accounting for that section.

NOTE: Authority cited: Sections 66700 and 70901, Education Code. Reference: Section 70901, Education Code.

16. Section 58007 of Subchapter 1 of Chapter 9 of Division 6 of Title 5 of the California Code of Regulations is amended to read:

#### 58007. Noncredit Classes.

Contact hours of enrollment in noncredit courses shall be based upon the count of students present at each course meeting. Average daily attendance in noncredit courses shall be computed by dividing the sum of contact hours of enrollment by 525. Noncredit distance education courses described in Section 55370 shall be conducted as independent study, and the computation of average daily attendance shall be as prescribed in Section 58003.1(f)(2).

NOTE: Authority cited: Sections 66700 and 70901, Education Code. Reference: Section 70901, Education Code.

17. Section 58009 of Subchapter 1 of Chapter 9 of Division 6 of Title 5 of the California Code of Regulations is amended to read:

# 58009. Application of Independent Study or Work Experience Attendance Procedure.

- (a) One weekly student contact hour shall be counted for each unit of credit for which the student is enrolled as of the census dates prescribed in sSection 58003.1(b) or (c).
- (b) Census days are applicable to Independent Study or Work Experience courses pursuant to section 58003.1(f).
- (c) (b) For credit courses Aaverage daily attendance in Lindependent Study or Wwork Experience education courses in primary terms is computed by multiplying the weekly student contact hours by the number of weeks the course is scheduled to meet, and dividing by 525. authorized pursuant to Subdivision (a) of this Section, generated as of the census date prescribed in Section 58003.1(b) by the term length multiplier as provided for in Section 58003.1, and dividing by 525.
- (c) For noncredit courses conducted as distance education independent study, average daily attendance is computed on a census basis as prescribed in Section 58003.1(f). This Subsection shall become inoperative on July 1, 2000, unless a later-adopted regulation deletes or extends this date.
- (d) Average daily attendance in <u>lindependent Sstudy</u> or <u>Wwork Eexperience education courses conducted during a summer or other intersession is computed by multiplying the weekly student contact hours, authorized pursuant to <u>sSubdivision</u> (a) of this <u>sSection</u>, generated in each course, by a course length multiplier that produces the same total weekly student contact hours for the same student effort as would be generated in such courses conducted in the primary terms, and dividing by 525.</u>

NOTE: Authority cited: Sections 66700 and 70901, Education Code. Reference: Section 70901, Education Code.

18. Section 58051 of Subchapter 1 of Chapter 9 of Division 6 of Title 5 of the California Code of Regulations is amended to read:

# 58051. Method for Computing Average Daily Attendance.

- (a)(1) Except as otherwise provided, in computing the average daily attendance of a community college district, there shall be included only the attendance of students while engaged in educational activities required of students and under the immediate supervision and control of an academic employee of the district authorized to render service in the capacity and during the period in which he or she served.
- (2) A community college district may also include the attendance of students enrolled in approved courses or programs of independent study, including courses or programs formerly conducted as coordinated instruction



systems, who are under the supervision, control, and evaluation, but not necessarily in the immediate presence, of an academic employee of the district who is authorized to render such service. Such attendance may only be included for college level credit courses and programs which are accepted for completion of an appropriate educational sequence leading to an associate degree, and which generally are recognized upon transfer by institutions of the University of California or the California State University.

The community college district shall determine the nature, manner, and place of conducting any independent study course or program in accordance with rules and regulations adopted by the Board of Governors of the California Community Colleges to implement the purposes of this subdivision. The rules and regulations shall require community college districts to ensure that the components of each individual study course or program for each student shall be set out in a written record or program, the number of units and hours of study required, the arrangements for consultation with the instructor, the work product to be evaluated, and the college facility required. The rules and regulations shall also provide for input from, and participation by, faculty, who are selected by academic senates or faculty councils, and students, in the development and evaluation of approved educational courses and programs.

(3) A community college district may also include the attendance of students enrolled in approved distance education independent study sections in accordance with the provisions of Section 55316.5(a) and (b).

- (b) For the purpose of work experience education programs in the community colleges meeting the standards of the California State Plan for Vocational Education, "immediate supervision" of off-campus work training stations means student participation in on-the-job training as outlined under a training agreement, coordinated by the community college district under a state-approved plan, wherein the employer and academic school personnel share the responsibility for on-the-job supervision. The student/instructor ratio in the work experience program shall not exceed 125 students per full-time equivalent academic coordinator.
- (c) For purposes of computing the average daily attendance of a community college district, attendance shall also include student attendance and participation in in-service training courses in the areas of police, fire, corrections, and other criminal justice system occupations that conform to all apportionment attendance and course of study requirements otherwise imposed by law, if the courses are fully open to the enrollment and participation of the public. However, prerequisites for the courses shall not be established or construed so as to prevent academically qualified persons not employed by agencies in the criminal justice system from enrolling in and attending the courses.
- (d) Notwithstanding <u>sSubdivision</u> (c) and any regulations adopted pursuant thereto, a community college may give preference in enrollment to persons employed by, or serving in a voluntary capacity with, a fire protection or fire prevention agency in any course of in-service fire training at the community college in cooperation with any fire protection or fire prevention agency or association. Preference shall only be given when such persons could



not otherwise complete the course within a reasonable time and when no other training program is reasonably available. At least 15 percent of the enrollment in in-service fire training courses shall consist of persons who are neither volunteers of, nor employed by, a fire protection or prevention agency or association, if the persons are available to attend a course. Average daily attendance for the courses shall be reported for state aid.

(e) Subdivision (d) shall apply only to the following:

(1) Community colleges which, in cooperation with any fire protection or fire prevention agency or association, have been, as of January 1, 1980, the primary source of in-service training for any fire protection or fire prevention agency or association.

(2) Community colleges which, in cooperation with any fire protection or fire prevention agency or association, establish in-service fire training for any fire protection or fire prevention agency or association which did not have in-

service fire training prior to January 1, 1980.

(f) In the event that certain in-service training courses are restricted to employees of police, fire, corrections, and other criminal justice agencies, attendance for the restricted courses shall not be reported for purposes of state apportionments. A community college district which restricts enrollment in inservice training courses may contract with any public agency to provide compensation for the cost of conducting such courses.

(g) Positive records of student admissions and daily attendance in all inservice training courses in the areas of police, fire, corrections, and other criminal justice system occupations, as described in Subdivision (c), shall be maintained by each district and shall be separately reported annually to the

Chancellor's Office.

NOTE: Authority cited: Sections 66700 and 70901, Education Code. Reference: Section 70901, Education Code.



# Revisions to the Procedures and Standing Orders of the Board of Governors

Section 409 is added to the *Procedures and Standing Orders of the Board of Governors* to read:

409. Distance Education.

(a) The Chancellor shall convene a task force comprised of members of those Consultation Councils most closely responsible for instruction to develop implementation guidelines, by June 1994, for offering distance education courses. Subsequent to the development of implementation guidelines, the Chancellor shall establish a Technical Advisory Committee on Distance Education to provide ongoing advice on the implementation and evaluation of distance education for the system.

(b) The Chancellor shall, by December 1999, provide a report to the Board of Governors that evaluates distance education systemwide and provides data and analysis, by age, disability, ethnicity, and gender, on student access to student instruction, enrollment and completion rates, and student and faculty

satisfaction.



# APPENDIX A

# Summary of Findings: National Survey on Distance Education Practices, 1992

Seven responses were received: Arizona, Tennessee, California State University, Northridge, Georgia, New Jersey, Connecticut, and Virginia. Most of these did not respond to our questions directly, but, rather, sent a report from which we gleaned whatever information came closest to answering our questions. We are disappointed that Texas did not respond since it is a large system and one similar to ours.

Note: Responses are in italics following each question.

1. Are the colleges in your system linked by a voice/video/data telecommunications system? If so, how was funding for this system provided?

Twenty-nine percent (2/7) responded "yes" with only one providing information on funds. Those funds were both bonds and through regular budgeting processes.

2. Please list the distance education technologies with greatest use in your state at this time (for example, telecourses, linked computer instruction, cable television, etc.).

One hundred percent (7/7) responded that broadcast (either television or cable) was the most frequently used media. Only Arizona reported use of computer linked instruction, but the number of students per semester using that technology is very large (over 1,000).

3. Are there any limitations on the types of distance education courses (i.e., credit, noncredit, vocational, transfer) for which you can receive state funding?

Six of seven responses stated that there were no limitations. Only Connecticut stated that transferable credit courses only were eligible distance learning courses.



4. How is distance education funded? Are differential formulas used? Do these formulas differ from those used for classroom instruction?

Most respondents did not answer this question. Of the two that did, one (Arizona) stated that funding formulas for distance learning were the same as those for classroom courses. The other state responding was Connecticut, and in that state funding comes from the systemwide office plus a \$7 fee from the college.

5. How are start-up costs funded? Do you have cost recovery formulas in place? If so, are they calculated into the cost of instruction, or separated?

Forty-three percent (3/7) report that start-up costs are state supported through regular budgeting processes. Only Virginia reports cost recovery plans that involve marketing programming to others.

6. Do you have information on direct and indirect costs of distance education?

Only Connecticut responded to this question and reports direct and indirect costs at between \$50 and \$50,000 a year. The response did not differentiate between the two types of costs.

7. Is there a minimum number of students that must be enrolled in order for it to be economically feasible to offer the class via distance technology?

Only Connecticut stated a number (10 students) with two others stating that flexible formulas were used.

8. How are enrollment and attendance counted?

The three states that answered this question stated that regular census procedures were used.

9. How is faculty load determined? Are there differential pay scales or other ways in which distance education faculty are treated differently than their colleagues.

Four states responded to this question and all responded that load is flexible and tied to course enrollment.



10. Are there prescribed maximum numbers of students per faculty member per section?

No respondent reported a maximum, other than Arizona, that tied this response to faculty load.

11. How are faculty trained to use distance technologies? Are there staff development funds that can be used for this purpose?

Twenty-nine percent (2/7) of respondents report use of staff development funds. In addition, Arizona provides trained faculty as mentors for others interested in distance education. All others state that no special effort is made.

12. Is there significant faculty resistance to distance technologies at this time?

Only two states responded, and those responses differed mainly because of the relative maturity of distance education in each state. Arizona reports little faculty resistance. Virginia, with a rather new effort, reports resistance.

13. Please describe any plans you have for expanding the use of distance technologies over the next three years.

Seventy-one percent (5/7) responded that expansion was planned or at least encouraged.



# APPENDIX B

#### References

- A Position Paper on Distance Learning of the Learning Resources Association of the California Community Colleges. March 1993.
- Abbott, Thomas E. Off-Campus Library Services Programs to Enhance Faculty-Student Interaction and Student Personal Development for Students at a Distance. DEOSNEWS, Vol. 3, No. 10, 1993.
- Abrioux, Dominique, Computer Assisted Language Learning at a Distance: An International Survey. The American Journal of Distance Education, 1991.
- Albrecht, Michael J. and David L. Graf, ed. Teaching in the Information Age:

  The Role of Educational Technology. Directions for Teaching and Learning,
  Number 51, Fall 1992, Jossey-Bass Publishers.
- Are Telecourses for Me? A Self Test. Anne Arundel Community College. New Directions: Fall 1993 Special Sessions.
- Arntson, L. Joyce. California Community Colleges Telecommunications Curriculum Guide. Chancellor's Office, California Community Colleges, Carl D. Perkins Vocational Education Act of 1984, Contract Number 87-0531.
- Bakersfield College: Presidential Multimedia. Supplement to T.H.E. Journal, October 1993.
- Barney, Dave. Final Report Project/Contract #91-1009: Telecommunications Conference May, 1992. DeAnza College. July 1993.
- Bodnar, Cecily and Peter Wiggens. Implementing the GED ON TV Tutor Program. Innovations in Distance Learning. University of Lowell, 1991.
- Borbely, Edward. Initiatives in Educational Video Communications: Opportunities for New Jersey. State of New Jersey Department of Higher Education, 1989.
- Bradshaw, Dean and Patricia Brown. The Promise of Distance Learning. Far West Laboratory, 1989.
- Brey, Ron. Expanding the Classroom Through Technology: Meeting the Mission of Community Colleges. AACJC Journal. February/March 1988.



- Brey, Ron. Telecourse Utilization Survey Project, Third Year Report, Fall 1986-Summer 1989. Executive Summary. American Association of Community and Junior Colleges, 1990.
- Brey, Ron. U.S. Postsecondary Distance Learning Programs in the 1990s: A Decade of Growth. Adult Learning Service/PBS and Annenberg/CPB Project, 1991.
- Brey, Ron and Charles Grigsby. *Telecourse Student Survey, 1984*. American Association of Community and Junior Colleges, funded by The Annenberg/CPB Project.
- Brothen, Thomas. Ideas in Practice: A Developmental Education Approach to Computer-Assisted Content Instruction. Journal of Developmental Education, Spring 1992.
- Burnett, Henry James. Political Relationships in The Governance of Instructional Technology in Postsecondary Education: The Case of the California Community Colleges. Doctoral dissertation. Indiana University, 1983.
- California Education Code, Article 14.5, California Distance Learning Policy, Chapter 1011, Statutes of 1991.
- Carl, David L. Electronic Distance Learning: Positives Outweigh Negatives. Technological Horizons in Education Journal. May 1991.
- Chaloux, Bruce. Project ALLTEL: A Summary Report Assessing Long Distance Learning Via Telecommuncations. Council on Postsecondary Accreditation, State Higher Education Executive Officers, 1985.
- Choosing the Future: An Action Agenda For the Community Colleges. Berman Weiler Associates, 1993.
- Clark, Thomas A. and John R. Verduin. Distance Education: The Foundations of Effective Practice. Jossey-Bass, 1991.
- Cole, Rodney and Sally M. Johnstone. Telecommunications Technology: Is There a Problem? National Education Association Higher Education Advocate. May 1993.
- Commission on Learning Resources and Instructional Technology: Project DELTA. California State University Board of Trustees Agenda Item 1, November 17-18, 1992.
- Computer/Communications Master Planning in Higher Education: A Workshop Panel Presentation. Cyberserv International Company, Mill Valley, California, undated.



- Connick, George and Pamela MacBrayne. Educational Access and Telecommunications in Maine. Innovations in Distance Learning. University of Lowell, 1991.
- Cradler, John. Defining the Federal Role in Educational Technology: Forum Proceedings. Far West Laboratory. December 1992.
- Creating "CREATE": Coastline Community College, GTE, and the California State University Offer Nation's First Fully Interactive Baccalaureate Degree Program. AACC Times, 1993.
- Crippens, David L. and Yolanda J. Nunn. Integrating Technology and Professional Development. Rockefeller Foundation, 1993.
- Crowley, Aileen. Talking Face-to-Face Across the Miles. PC Week. May 10, 1993.
- Davis, Hayden. Distance Education: One Faculty Member's Perspective. Palomar College. February 1993.
- DeLoughry, Thomas. Crucial Role Seen for Technology in Meeting Higher Education's Challenges. Chronicle of Higher Education. September 23, 1992.
- Desktop Videoconferencing System Supports Global Interactive Learning, ED, Education at a Distance. September 1993.
- Dille, Brian and Michael Mezak. Identifying Predictors of High Risk Among Community College Telecourse Students. The American Journal of Distance Education, 1991.
- English as a Second Language Solicitation Guidelines. The Annenberg/CPB Project, 1993.
- Faculty Resource Guide to Distance Education. Western Cooperative for Educational Telecommunications. WICHE, 1991.
- Farr, Charlotte W. and James M. Shaeffer. Evaluation: A Key Piece in the Distance Education Puzzle. T.H.E. Journal. April 1993.
- GED ON TV. Newsletter. The Kentucky Network. July/August 1993; Winter 1993.
- Going The Distance: A Handbook for Developing Distance Degree Programs
  Annenberg/PCB Project and PBS Adult Learning Service, 1992.
- Handbook of Accreditation and Policy Manual. 1990 edition.



- Handa, Carolyn. Computers and Community: Teaching Composition in the Twenty-First Century. Boynton/Cook, 1990.
- HEIRAlliance Executive Strategies Report #3: What Presidents Need to Know...about the Impact of Networking on Campus. October 1993.
- Interim Report. Task Force on Intercampus Programs and Distance Learning. University of California, 1993.
- Journal of Science Education and Technology. Plenum Press. March 1992.
- Kabat, Ellen and Janice Friede. The Eastern Iowa Community College District's Televised Interactive Education Evaluation Report, 1989-1990. Eastern Iowa Community College District, 1990.
- Krebs, Arlene. The USDLA Funding Sourcebook for Distance Learning and Educational Technology: A Guide to Foundation, Corporate, and Government Support for Telecommunications and the New Media. United States Distance Learning Association, 1993.
- Lane, Carla. Far West Laboratory. Unpublished paper: How to Predict and Overcome the Barriers to Distance Education Programs in Your Organization.
- Lane, Carla. Teachers Forum: Getting the Best from Online Education, ED, Education at a Distance. September 1993.
- Lane, Carla and Patrick Portway. Technical Guide to Teleconferencing and Distance Learning. Applied Business Telecommunications. San Ramon, California, 1992.
- LeBaron, John F., ed. Innovations in Distance Learning. University of Lowell (Massachusetts), 1991.
- Lemke, Montanari and Workman Tilson. Models for Providing Support Services to Off-Campus Students. Unpublished monograph presented in Utah, 1993.
- McAuliffe, Daniel. Comprehensive TV Student Profile: Spring 1988-91. State of Connecticut Board of Trustees of Community-Technical Colleges, 1991.
- Master Plan in Focus: Recommendation 9. Assembly Higher Education Committee. 1993.
- Project DELTA: Planning Phase. The California State University, 1992.
- Proceedings: California Community Colleges Telecommunications Conference,. October 9-10, 1985, Board of Governors, Chancellor's Office, 1985.



- Program Planning for Project DELTA: Early Campus Prototypes. Commission on Learning Resources and Instructional Technology. The California State University. March 1993.
- Purdy, Leslie and Stephen Wright, eds. The American Journal of Distance Education. 1992.
- Quality Television Instruction: Perceptions of Instructors and Administrators. Utah Education Network. Salt Lake City, Utah, May 1992.
- Report of the Commission for the Review of the Master Plan: Recommendation 22.
- Rogers, Susan M. The Key Program: A Cooperative Multimedia Approach to Distance Learning, Innovations in Distance Learning. University of Lowell, 1991.
- Russell, Thomas L. Television's Indelible Impact on Distance Education: What We Should Have Learned from Comparative Research. October 1992.
- Russell, Thomas L. Interactivity versus Virtual Interactivity: Which Is Better? Unpublished monograph presented in Maine, 1993.
- Russell, Thomas L. The "No Significant Difference" Phenomenon as reported in Research Reports, Summaries, and Papers, 1993.
- State Policy on Technology for Distance Learning: Recommendations to the Legislature and the Governor. California Postsecondary Education Commission, 1991.
- Status Report and Recommendations for Telecommunications in Tennessee Higher Education, 1989. Tennessee Higher Education Commission, May 1989.
- Stout, Connie. Texas Civil Statutes, Article 1444c; Education Code, Sec. 14.0451.
  Texas Education Network. University of Texas Austin, December 1993.
- System Guidelines for the Operation of TV Community College Through the General Fund. State of Connecticut Board of Trustees of Community-Technical Colleges, 1992.
- Technology and the Future of Education: Directions for Progress. California Postsecondary Education Commission, 1989.
- Technology Offers Creative Opportunities to Boost Literacy. National Center for Family Literacy Newsletter. September 1993.



- Telecommunications: A Paradigm for the Future of Illinois Higher Education. Report of the Illinois Community College Board Telecommunications Ad Hoc Task Force. June 1992.
- Telecommunications and Distance Education: A Guide for Proposal Development. Western Cooperative for Educational Telecommunications. WICHE, 1991.
- Thompson, Darrell. Vermont Interactive Television: Compressed Video Connecting Multiple Sites. Innovations in Distance Learning. University of Lowell, 1991.
- The California Master Plan for Educational Technology. California Planning Commission on Educational Technology, 1992.
- The Report of the Task Force on Distance Education. Pennsylvania State University, 1992.
- The VCCS Distance Education Network: A Statewide Plan for Pilot Testing Access to Distance Education. Virginia Community College System, 1991.
- Van Patten, Charles. Distance Learning Principles. Unpublished paper. September 1993.
- Wallin, Desna L. Televised Interactive Education: Creative Technology for Alternative Learning. Community/Junior College Quarterly of Research and Practice, July-September 1990.
- White, Mary Alice, Distance Learning: How Will We Know If It Works? Innovations in Distance Learning. University of Lowell (Massachusetts), 1991.
- Wilkes, C. Wynn and Byron Burnham. Adult Learner Motivations and Electronic Distance Education. The American Journal of Distance Education, 1991.
- Wilson, Robin. Teaching College on the Cheap. Sacramento Bee. Fall, 1993.
- Wolcott, Linda L. Faculty Planning for Distance Teaching. American Journal of Distance Education, 1993.
- Wolcott, Linda L. Faculty Rewards and Incentives in Distance Education. Unpublished paper. October 1993.



# APPENDIX C

## Glossary

- Distance Education: Teaching and learning situations in which the instructor and the learner are geographically separated and therefore rely on electronic devices and printed materials for instructional delivery (Portway and Lane, 1992). This term has become the dominant one in the literature on education delivered via electronic technology over distance.
- Distance Teaching: The role of the instructor in any distance education situation.
- Distance Learning: The role of the student in any distance education situation.
- Telelearning: A rather new term, building upon the trend in a variety of settings to refer to activities taking place over distance by the use of the Greek prefix "tele" preceding a word or root with well understood meaning. Other examples include "telecommuting," "telemedicine," "teleconference," "telecourse," etc.
- Interactive: Originally referring to technology that provides immediate synchronous opportunities for exchange between participants at both ends of any mediated experience, but currently also including asynchronous exchanges that take advantage of new technologies such as electronic networks and bulletin board as well as more familiar approaches that include but are not limited to voice mail, FAX, computer/modem connections, and telephone.
- Asynchronous: Not occurring in "real time."
- Synchronous: Occurring in "real-time."

